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ITALIANO, Giuseppe [AU/AU]; 280 Thompsons Road,
Maude, Victoria 3331 (AU).

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(74) Agent: **FREEHILLS CARTER SMITH BEADLE**;
Level 43, 101 Collins Street, Melbourne, Victoria 3000
(AU).

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(71) Applicants (*for all designated States except US*): **THE
AUSTRALIAN STEEL COMPANY (OPERATIONS)
PTY LTD** [AU/AU]; Ground Floor, 650 Lorimer Street,
Port Melbourne, Victoria 3207 (AU); **D. WILSON
INVESTMENTS PTY LTD** [AU/AU]; 44 North Road,
Newport, Victoria 3015 (AU); **FERRO CARBON TECH-
NOLOGY PTY LTD** [AU/AU]; 267 Hawthorn Road,
Caulfield, Victoria 3161 (AU).

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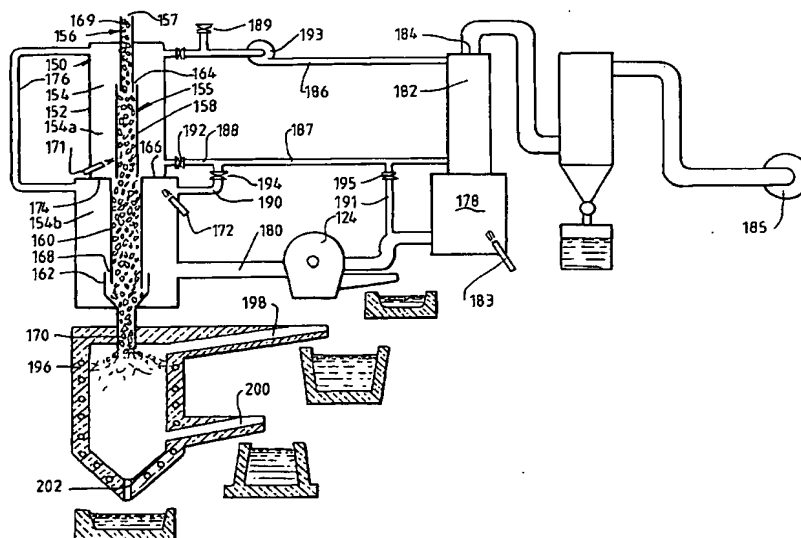
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(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **WILSON, David**
[AU/AU]; 44 North Road, Newport, Victoria 3015 (AU).

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: PROCESS AND APPARATUS FOR EXTRACTING ZINC



(57) Abstract: A process for extraction of zinc from a material containing one or more iron oxides and zinc oxide includes heating a composite body of the material and a carbonaceous material in a reduction zone. The reduction zone contains a reducing atmosphere at a temperature insufficient to effect melting of the iron in the material but at a temperature and for a time sufficient to form a reductant from the carbonaceous material and to reduce a predetermined amount of the zinc oxide to zinc vapour. The process also includes collecting the zinc vapour and cooling it to form liquefied or solid zinc.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU03/01366

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. ⁷: C22B 19/14, 19/16, 5/10, 1/245, 13/00, C21B 13/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C22B 19/16, 19/18, 19/14

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

DWPI: C22B 5/00, 13/00, 1/245, C21B 13/04 and keyword: Zinc+

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 508166 A2 (ZIA METALLURGICAL PROCESSES, INC.) 14 October 1992 See Abstract, column 5 lines 14 to column 6 line 50	1-31
X	EP 745692 A1 (TOYOTA JIDOSHA KK et al) 4 December 1996 See Figure 1, page 4 lines 30-50	1-4, 10-3-20, 27-31
X	WO 91/09977 A (TETRONICS RESEARCH AND DEVELOPMENT COMPANY LIMITED) 11 July 1991 See Figure 1	17-20, 27-31

☒ Further documents are listed in the continuation of Box C

☒ See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

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Name and mailing address of the ISA/AU

AUSTRALIAN PATENT OFFICE
PO BOX 200, WODEN ACT 2606, AUSTRALIA
E-mail address: pct@ipaustalia.gov.au
Facsimile No. (02) 6285 3929

Authorized officer

ROGER HOWE

Telephone No : (02) 6283 2159

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 174641 B1 (SUMITOMO HEAVY INDUSTRIES, LTD) 11 December 1991 See column 3 lines 1 to 28	17-20, 27-31

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/AU03/01366

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

Patent Document Cited in Search Report				Patent Family Member			
EP	0508166	AU	13886/92	BR	9201258	CA	2061548
		JP	5125454	MX	9201682	US	5186741
EP	0745692	CA	2177766	CN	1147021	JP	9287033
		US	5871561				
WO	9109977	AU	69707/91	BR	9007934	CA	2072003
		EP	0511973				
EP	0174641	CA	1239798	JP	61067726	JP	62050421
		US	4612041				
END OF ANNEX							